International Journal of Infectious Diseases 48 (2016) 1–2

Contents lists available at ScienceDirect

International Journal of Infectious Diseases

journal homepage: www.elsevier.com/locate/ijid

Medical Imagery

Diffuse *Escherichia coli* gaseous abscesses

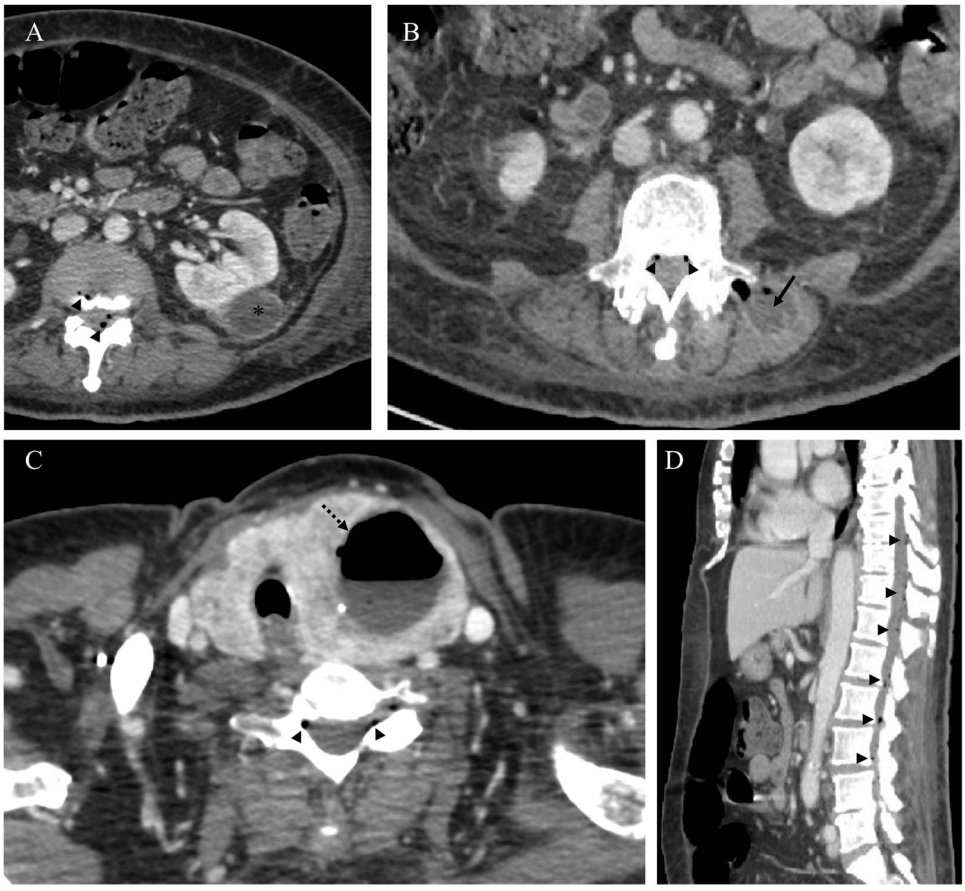

Figure 1. Computed tomography scan showing a left kidney abscess (panel A, asterisk), an L3–L4 spondylodiscitis with a left erector spinal muscle abscess (panel B, arrow) with diffuse gas bubbles (all panels, arrow heads), and a voluminous thyroid abscess (panel C, dotted arrow).

A 73-year-old woman with a history of diabetes mellitus presented to the hospital with a fever >39 °C of 5-day duration associated with left hip, left sacroiliac, and lower back pain and a painful cervical swelling. Laboratory findings revealed an inflammatory syndrome (C-reactive protein 245 mg/l and neutrophil count 29.6×10^9/l) and uncontrolled diabetes (fasting plasma glucose level 37.3 mmol/l and glycosylated haemoglobin 14%). Computed tomography (CT) revealed a left kidney abscess, left hip and sacroiliac effusions, L3–L4 spondylodiscitis with a left erector spinal muscle abscess, and a thyroid abscess responsible for a right-sided tracheal deviation (Figure 1). Gas bubbles were observed in all of these lesions and along the epidural space. Cultures of blood, urine, and puncture samples from the left hip and the thyroid yielded an *Escherichia coli* strain, without anaerobes. A 12-week regimen of cefotaxime and ciprofloxacin along with surgical drainage of the thyroid abscess and strict glycaemic control allowed a favourable outcome, with no relapse after 2 years of follow-up. This case is a reminder of the high prevalence of *E. coli* infections in patients with poorly controlled diabetes, which can be associated with gas production, not confined to anaerobes.[1,2] Diffuse involvement and the extension of gas into the epidural space are rare, as are thyroid abscesses,

http://dx.doi.org/10.1016/j.ijid.2016.04.001

which can be triggered by underlying thyroid pathogenic conditions.[3]

Acknowledgements

The Lyon Bone and Joint Infection Study Group comprises the physicians Florence Ader, François Biron, André Boibieux, Evelyne Braun, Christian Chidiac, Fatiha Daoud, Tristan Ferry, Yves Gillet, Laure Hees, Johanna Lippman, Patrick Miailhes, Thomas Perpoint, Sandrine Roux, Julien Saison, Marie-Paule Vallat, and Florent Valour; the surgeons Cédric Barrey, Jean-Baptiste Bérard, Fabien Boucher, Pierre Breton, Olivier Cantin, Philippe Chaudier, Romain Desmarchelier, Michel-Henry Fessy, Stanislas Gunst, Timothée Jacquesson, Emmanuel Jouanneau, Sébastien Lustig, Ali Mojallal, Philippe Neyret, Adrien Peltier, Olivier Reynaud, Hristo Shipkov, Francesco Signorelli, Thibault Vermersch, and Anthony Viste; the microbiologists Céline Dupieux, Frederic Laurent, Jean-Philippe Rasigade, and François Vandenesch; the nuclear medicine specialists Francesco Giammarile, Marc Janier, and Isabelle Morelec; the PK/PD specialists Marie-Claude Gagnieu, Sylvain Goutelle, and Michel Tod; the clinical research assistant Eugénie Mabrut.

Conflict of interest: None, for all authors.

References

1. Lee CH, Lee CC, Hsieh CC, Hong MY, Chi CH. Predicting abscesses in adults with community-onset monomicrobial *Enterobacteriaceae* bacteremia: microorganisms matters. *Diagn Microbiol Infect Dis* 2016;**84**:74–9.
2. Nadkarni T, Shah A, Kansal R, Goel A. An intradural-extramedullary gas-forming spinal abscess in a patient with diabetes mellitus. *J Clin Neurosci* 2010;**17**:263–5.
3. Herndon MD, Christie DB, Ayoub MM, Duggan AD. Thyroid abscess: case report and review of the literature. *Am Surg* 2007;**73**:725–8.

Erwan Oehler[a]
Tristan Ferry[b,c]
Christian Chidiac[b,c]
Florent Valour[b,c,*]
on behalf of the Lyon BJI study group
[a]*Department of Internal Medicine, French Polynesia Hospital Centre, Pirae, Tahiti, French Polynesia*
[b]*Infectious Diseases Department, French Regional Reference Centre for Bone and Joint Infection, Hospices Civils de Lyon, Lyon, France*
[c]*International Centre for Research in Infectiology, Claude Bernard Lyon 1 University, Lyon, France*

[*]Corresponding author. Tel.: +33 4 72 07 11 07; fax: +33 4 72 07 24 43.
E-mail address: florent.valour@chu-lyon.fr (F. Valour).

Corresponding Editor: Eskild Petersen, Aarhus, Denmark.

Received 14 February 2016